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| Name: Click or tap here to enter text. | UWM ID: Click or tap here to enter text. |

**FIRST YEAR**

BioSci Faculty Advisor: Dr.

University of Wisconsin Milwaukee

Department of Biological Sciences  
Major in Microbiology

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| **FALL**   1. *Example: BioSci150 - 4 cr* 2. Click or tap here to enter text. 3. Click or tap here to enter text. 4. Click or tap here to enter text. 5. Click or tap here to enter text.   BioSci Total Credit  BioSci >300 level | **SPRING**  1 Click or tap here to enter text.   1. Click or tap here to enter text. 2. Click or tap here to enter text. 3. Click or tap here to enter text. 4. Click or tap here to enter text.   BioSci Total Credit  BioSci >300 level |

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| **Requirements** |
| * 34 microbiology**†** course credits (BioSci150 and 152 are the only 100-level courses that count toward the major) |
| * At least 26 credits in courses numbered 300 or greater |
| * At least 2.0 GPA in microbiology courses for major |
| (At least 3.75 GPA in microbiology courses for honors in major)  **†**All of the foundation, gateway, required, elective, and capstone courses listed here and on Page 2 have microbiology content and thus count as ‘microbiology’ courses. |

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| **FOUNDATION MICROBIOLOGY COURSES:** Take sequentially. | | |
| BioSci 150 | BioSci 152 | BioSci 325 |

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| **GATEWAY MICROBIOLOGY COURSE:** | |
| BioSci 383 |  |

**REQUIRED UPPER LEVEL MICROBIOLOGY 2 of 3 COURSES:**

**SOPHMORE YEAR**

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| BioSci 529  BioSci 535 |
| BioSci 540 |

***Also, take at least one of:***

BioSci 315

Chem 501

***Also, take at least one of:***

BioSci 539

BioSci 580

**Other electives are listed on Page II.**

**JUNIOR YEAR**

**RESEARCH CAPSTONE REQUIREMENT:** See Page II.

**REQUIRED NON-MICROBIOLOGY SCIENCE COURSES:**

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| **CHEMISTRY:** | | |
| **Gen Chem:** | **Organic Chem:** | |
| Chem 102 | Chem 343 | |
| Chem 104 | Chem 344 |
|  | Chem 345 |
| **MATH:** Take at least one Calculus course (Math 211, 213, 221, 231). In addition, take at least one of: MTHSTAT 215, Math 222, Math 232, or BioSci 465. | | | |

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| **PHYSICS:** Choose one sequence | | | | |
| **Sequence I: or Sequence II: or Sequence III:** | | | | |
| Lecture | Lab | Lecture | Lab | Combined |
| Phys 120 |  | Phys 209 |  | Phys 219 |
| Phys 122 | Phys 123 | Phys 210 | Phys 215 | Phys 220 |

**GENERAL EDUCATION REQUIREMENTS**

See L&S advisor for additional L&S/University requirements for the degree.

See L&S advisor for additional L&S/University requirements for   
the degree pathway.

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| **FALL**   1. Click or tap here to enter text. 2. Click or tap here to enter text.   3 Click or tap here to enter text.  4 Click or tap here to enter text.  5 Click or tap here to enter text.  BioSci Total Credit  BioSci >300 level | **SPRING**   1. Click or tap here to enter text.   2 Click or tap here to enter text.  3 Click or tap here to enter text.  4 Click or tap here to enter text.  5 Click or tap here to enter text.  BioSci Total Credit  BioSci >300 level |

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| **FALL**   1. Click or tap here to enter text. 2. Click or tap here to enter text. 3. Click or tap here to enter text. 4. Click or tap here to enter text. 5. Click or tap here to enter text.   BioSci Total Credit  BioSci >300 level | **SPRING**   1. Click or tap here to enter text. 2. Click or tap here to enter text. 3. Click or tap here to enter text. 4. Click or tap here to enter text. 5. Click or tap here to enter text.   BioSci Total Credit  BioSci >300 level |

**SENIOR YEAR**

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| **FALL**   1. Click or tap here to enter text. 2. Click or tap here to enter text. 3. Click or tap here to enter text. 4. Click or tap here to enter text. 5. Click or tap here to enter text.   BioSci Total Credit  BioSci >300 level | **SPRING**   1. Click or tap here to enter text. 2. Click or tap here to enter text. 3. Click or tap here to enter text. 4. Click or tap here to enter text. 5. Click or tap here to enter text.   BioSci Total Credit  BioSci >300 level |

**TOTALS:**

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| BioSci Total Credit | BioSci >300 level |

***Revised: 7/25/23***

**MAJOR IN MICROBIOLOGY - COURSES**

**RESEARCH CAPSTONE REQUIREMENT**

(Take at least 1 credit of one course)

BioSci 671 (1 cr) Undergrad Seminar in Microbiology

BioSci 670 (1 cr) Senior seminar

BioSci 698 (1-6 cr) Ind Study in Microbiology

BioSci 699 (1-6 cr) Ind Study

BioSci 495 (3-6 cr) Internship in Biotechnology

Honors 686 (1-6 cr) Research in Honors

Honors 687 (1-6 cr) Senior Honors Project

Honors 689 (1-6 cr) Senior Honors Thesis

***Up to six credits of independent study, honors research or internship can count towards the major***

BioSci departmental approval required for capstone credit for these Honors courses.

Only BioSci 670, BioSci 699, Honors 686, Honors 687, or Honors 689 courses that are determined by the student’s microbiology faculty advisor to have microbiology content count toward the major.

Credits from courses taken to fulfill the research capstone count toward the 34 credits in microbiology needed for the degree.

**Required Courses (cr)**

BioSci 150 (4) Found. of Biological Sci I **(Sp,F,Su)**

BioSci 152 (4) Found. of Biological Sci II **(Sp,Su,F)**

BioSci 325 (4) Genetics (**Sp,Su,F**)

BioSci 383 (4) General Microbiology (**Sp,F**)

**Two out of the following:**

BioSci 529 (3) Molecular Bio of Microorganisms (**Sp**)

BioSci 535 (3) Bacterial Pathogenesis (**F**)

BioSci 540 (3) Microbial Diversity (**F**)

**Electives (cr)**

**BioSci 315\*** (3) Cell Biology (**Sp,F**)

BioSci 316 (2) Lab in Genetics & Cell Bio (**Sp,F**)

BioSci 401 (3) Immunology (**Sp**)

BioSci 405 (3) General Virology (**F**)

BioSci 469 (2) Genomic Data Analysis (**S**, odd years)

BioSci 490 (3) Molecular Genetics (**F,** offered odd years)

**BioSci 539\*\*** (4) Lab Techniques Mol Bio (**Sp**)

BioSci 542 (3) Biological Electron Microscopy (**F**)

BioSci 544 (3) Trans Electron Microscopy Lab (**Sp**)

BioSci 572 (3) Functional Genomics (offered irregularly)

**BioSci 580\*\***(4) Experimental Microbiology (**Sp)**

**Chem 501\*** (3) Introduction to Biochemistry (**Sp,F**)

Chem 601 (3) Biochemistry: Protein Struct./Function (**F**)

BMS 534# (3) Medical Microbiology (**Sp**)

BMS 535# (2) Medical Microbiology Laboratory (**Sp**)

BMS 539# (2) Public Health Microbiology (**F**)

BMS 540# (2) Public Health Microbiology Lab (**F**)

**\*Student must take BioSci 315 and/or Chem 501**

**\*\*Student must take BioSci 539 and/or BioSci 580**

#Students may take these BMS courses to earn credit toward the Microbiology BS provided that they earn 30 advanced credits in Natural Sciences within the College of Letters and Science, as required for the BS degree.

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| **Abbreviations**  **(F)**  Course offered in the Fall  **(Sp)** Course offered in the Spring  **(Su)** Course offered in the Summer |